

What is claimed is:

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1. A back light device for a liquid crystal display device, comprising:
a light source providing light;
a light waveguide plate 40 guiding light from the light source, having an emitting surface, a front surface and a bottom surface, the emitting surface adjacent to the light source;
a reflector arranged under the bottom surface of the light wave guide plate, reflecting light; and
at least one cholesteric liquid crystal (CLC) film arranged over the front surface of the light wave guide plate, collimating light.
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2. The back light device of claim 1, wherein the CLC film has one-layered structure of a right- or a left handed CLC layer, the right- and left handed CLC layer selectively reflect a right- and a left-handed circularly polarized light, respectively.
3. The back light device of claim 1, wherein the CLC film has a dual-layered structure of a right- and a left handed CLC layer, the right- and left handed CLC layer selectively reflect a right- and a left-handed circularly polarized light, respectively.
4. The back light device of claim 1, further comprises, a prism sheet arranged between the CLC film and the front surface of the light wave guide plate.
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